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ABSTRACT

The purpose of this study was to determine if training in progressive relaxation would reduce the frequency of classroom disruptions of low income first grade students. A total of 22 students in one classroom were randomly assigned to an experimental or a control group. A frequency count of classroom disruptions was made for 5 days before the treatment period. Treatment consisted of instructing experimental subjects in progressive relaxation for 10 to 15 minutes for 10 days; control subjects received no instruction. Frequency counts of classroom disruptions were made during the last 5 days of the treatment period and a week after the completion of the treatment. Results of chi square analyses suggested that the treatment was effective in reducing the incidence of classroom disruptions and that the training was retained by the experimental group. It is concluded that progressive relaxation should be a part of the homeroom procedures at every grade level every day. Appendices provide related materials, such as a Child's Stress Inventory, lists of likely sources of stress in children from kindergarten to grade 4 and of symptoms of stress in grades 1 through 6, and guidelines for reducing stress in children through creative relaxation. (Author/RH)

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THE EFFECTS OF PROGRESSIVE RELAXATION ON THE FREQUENCY OF CLASSROOM DISRUPTIONS OF LOW INCOME FIRST GRADE STUDENTS

by

KIMBERLY A. WEIMER

A RESEARCH PROJECT REPORT

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Presented in fulfillment of the Requirements for the Research Project Course in the Graduate Program of Education at Mercer University in Atlanta

Atlanta, Georgia
1987

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ABSTRACT

THE EFFECTS OF PROGRESSIVE RELAXATION ON THE FREQUENCY OF CLASSROOM DISRUPTIONS OF LOW INCOME FIRST GRADE STUDENTS

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Kimberly A. Weimer

Purpose

The purpose of this study was to determine if training in progressive relaxation would reduce the frequency of classroom disruptions of low income first grade students.

Procedure

A classroom of 22 low income first grade students were randomly assigned to either an experimental or a control group. A frequency count of classroom disruptions was taken for five days before the treatment period. The experimental group received 10 to 15 minutes of progressive relaxation instruction

each morning for 10 days, while the control group received no instruction in the technique.

Another frequency count of classroom disruptions was taken during the last five days of the 10 day treatment period. A week after the completion of the treatment, another frequency count of classroom disruptions was taken to see if the children retained knowledge and applied their training in progressive relaxation.

Results

The results were analyzed using the Independence of Categorized variables chi square. The calculated chi for the classroom disruptions before and during the treatment was 5.61, rejecting the null hypothesis. However, the calculated chi for the classroom disruptions during and after the treatment was .764, showing no significant difference in the number of disruptions. This suggests that the children trained in progressive relaxation retained that skill and used the technique after the treatment period.

Conclusions

There is a significant difference in the frequency of disruptive classroom behavior for the first grade students who were trained in progressive relaxation and those who were not.

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(Schultz & Heuchert; 1983; p. 89)

In silence
the child stares
onto mindscapes
known only to her.

so fearful
so offended
so left out
. . . Outsiders
in agony
scream their cultural right.
PAY ATTENTION
In fright
the child turns back
Pay attention
pay attention indeed
. . . no matter what
the cost.
(Samples, Charles & Barnhart, 1977)

A school environment that helps children learn coping skills and fosters a positive school experience would resemble:

In silence
the child stares
onto mindscapes
known only
to her . . .
(Samples, Charles & Barnhart, 1977)
Let her be, let her be.
Help her to see,
that she can be . . .

Exploring her inner space
you see
Free to be
free to see
Herself.

Section I

INTRODUCTION AND PROBLEM STATEMENT

Every person experiences stress throughout his or her life. Eustress is a positive stress, representing a challenge while distress or damaging stress wears down the body allowing disease to invade. People must learn to deal with distress at an early age to minimize health problems that can occur from prolonged stress. Psychosomatic disorders due to stress occur in children as well as adults, when an individual responds to physical, social and psychological factors by becoming ill. Children are highly susceptible to the ill effects of stress as their understanding of stress and coping skills are quite limited.

Hans Seyle (1980) developed the General Adaptation Syndrome which recognizes the stages a person experiences in dealing with a stressful situation. The sequence which occurs in any reaction to stress is the Alarm Reaction, the Stage of Resistance, followed by the Stage of Exhaustion.

Eustress and distress in our lives should be balanced in order for us to remain healthy.

Children today must deal with stressful family situations such as divorce, poverty, abuse, alcoholism in the family, death of a family member, and being left alone to care for themselves and other siblings. Children respond to stress in several different ways. Chandler (1982) defines these responses as the dependent response, the impulsive response, the passive-aggressive response and the repressed response. These responses and behaviors are extremely important for teachers to be aware of in detecting stress-related behaviors and problems in the classroom.

Many children feel tremendous pressure on themselves and therefore become stressful because of school events and situations. Parents and teachers alike hurry children through school, expecting each child to live up to the teachers' and/or parents' expectations. Some children respond to stress at school by fighting back any way they can. This in turn is seen by the teacher not as a distress signal, but as a behavior disorder which needs correction

through punishment or consequences. The child then feels more stressful and the vicious circle begins.

Just as teachers become "burned out" with the school experience, so do children. If a teacher becomes impatient, unfriendly and demanding, children will feel hurried and unimportant, creating feelings of low self-esteem which in turn produces stress. Child burnout could be understood more fully by teachers if they would compare their stress symptoms and feelings of occasional burnout to behaviors that children are exhibiting.

In dealing with stress that children, teachers and every individual feels, some form of relaxation is necessary in order for stresses and tensions to be released. Many types of relaxation techniques have been developed along with ways of helping children learn to manage stress. In order for adults and especially children to live happy, healthy and productive lives, each needs to be aware of their own bodies reactions to stress and ways they can relieve that tension. Benson (1975) advocates a technique combining relaxation and meditation to induce the Relaxation Response which allows the body to return to a healthy balance. Visual imagery lets the mind go

on "trips" to more peaceful imagined places. Combined with deep breathing exercises, research indicates that visual imagery techniques taught to students helped them to score higher on reading tests because they could imagine more of what they read.

Autogenic Relaxation Training consists of progressive muscle relaxation and imaginative experiences which Frey (1980) says leads to improved concentration and greater academic progress in students. Deep breathing techniques can be taught to children as a way of letting all of the "stressful" air out and breathing the calm air back in.

Greenberg (1984) states that Edmund Jacobsen developed the progressive relaxation technique while working with hospital patients who appeared to be tense. The object of this method is to progressively, throughout the arms, face, abdomen, and legs, tense each muscle group, then relax it, becoming aware of how tense muscles feel. When the patient became aware of the tense feelings of the muscles, he or she could tense and relax the muscle to create a feeling of relaxation. By training students to become aware of tense feelings of the body caused by some form of

stress, the students can relax themselves, allowing their bodies to return to a state of equilibrium.

Statement of the Problem

Is there a significant difference in the frequency of disruptive classroom behavior for first grade students who are taught progressive relaxation and those who are not?

Definitions of Terms

Disruptive classroom behaviors are identified as hitting another child, tattling, interrupting the teacher while she is speaking, talking back and arguing with a teacher and being defiant. Defiance will be identified as a refusal to do an assigned task or activity and breaking classroom or school rules after being informed about the consequences of those actions.

Assumptions

The children in the control group and the experimental group were presumed to have relatively the same stress levels.

Delimitations

The study was limited to 22 first grade students from an urban school with the family socioeconomic status ranging from lower middle class to upper lower class.

Section II

RELATED RESEARCH REVIEW

Our children today have many stressors in their lives due to increased single-parent homes, the disappearance of our society's "middle-class," and the increased responsibility they have in the family. Children need to be aware of stress they feel in their bodies, the harmful effects of stress and of their efforts in dealing with stress. Educators and the school experience can create stress in children, or help to alleviate the stresses children feel. By teaching children how to relax their minds and bodies when they feel stressed, many classroom problems such as poor comprehension, inattentiveness, non-social behaviors and disruptions may be resolved.

Stress

We are exposed to stress every moment of our lives and our response to it often determines the quality of life and health. The most widely accepted definition of stress was conceived in 1946

by Hans Selye who was the first to experiment and develop the stress concept. Allen (1983) quotes Selye's definition of stress as being the nonspecific response of the body to any demand made upon it to adapt whether that demand produces pleasure or pain.

Stress cannot be avoided since during every moment of our lives some demand for life maintaining energy exists. Even while we are asleep, the heart, respiratory system and other organs continue to function. Selye (1980) states that complete freedom from stress is death. Most stress conditions that we experience are not physically derived. According to Allen (1983), the stressors for people in this culture, the events that seem to distort our lives and bodies, are more cognitive in origin. Events by themselves cannot produce physical change in the body, but affect us because of the way we interpret them.

Blom, Cheney and Snoddy (1986) define a stressor as an acute life event or a chronic environmental situation that causes disequilibrium sufficient to cause the person to make an adjustment to the stressor. This adjustment is called a response. When both a stressor and a response to it occur, stress is

present. Potential stressors are events or situations that are commonly thought of as having negative characteristics, such as pain, loss, failure, humiliation and threat. However, positive life events such as success, high achievement, and accomplishments may be stressful if they cause emotional disequilibrium and result in behavioral response.

Two forms of stress, identified by Schultz and Heuchert (1983), are physical and psychological. In practice, the two forms tend to interact with one another to an extent equal to an individual's capacity to integrate the stressor. Psychologically, we react to threatening situations in ways that have successfully reduced stress for us in the past. Such reactions may not always be consciously available or fully comprehended by us.

Physiologically, we react to life events which we perceive as potentially threatening in a standard manner. Evans (1982) discusses Selye's General Adaptation Syndrome as being based on the idea that the body can cope with stress but this coping has costs for subsequent coping. Long term exposure to stress or repeated instances of adaptive demand can deplete a person's adaptive reserves and lead to

physical dysfunction. Selye's General Adaptation Syndrome occurs in three stages. According to Schultz and Heuchert (1983), this sequence always occurs in any reaction to stress and is quite predictable.

When first exposed to a stressor, the body responds by mobilizing its coping abilities. This is called the Alarm Reaction. When a person is suddenly exposed to diverse stimuli to which he or she is not adapted, Elkind (1981) states that there is a rapid increase in energy consumption--of which there is only a finite amount. The Alarm Reaction represents preparation for resistance. When these reserves are made ready, the body enters a Stage of Resistance.

During the Stage of Resistance, the sensory motor system is ready for quick action; either to engage in combat or run away (fight or flight response). A person applies various coping mechanisms and typically achieves suitable adaptation. When these reactions are repeated often or when coping is not successful, adaptive reserves are depleted. There is a decrease in the resistance to most other stimuli. The body then enters the Stage of Exhaustion.

During the Stage of Exhaustion, two things can happen. The body can return to its state of

equilibrium and replenish energy reserves or if resistance has declined, physiological breakdown occurs and the body becomes highly susceptible to disease. Selye (1980) adds that if stress continues unabated, death ensues.

Eustress and distress are outcomes of stress reactions. Eustress is defined by Allen (1983) and Schultz and Heuchert (1983) as representing a challenge, a stimulus for growth and positive development. Eustress is essential for a living system's growth and survival. Damaging stress or results of negative maladaptive responses to stressful events is called distress. This wear and tear on the body breaks down a living system and has the capacity to foster disease.

We have the gift of personal power to alter the way we are. Our power can arise from many sources such as a belief in our abilities and supportive friendships. We can learn more functional and adaptive methods for helping us meet and successfully act upon life events. Selye (1980) suggests general ways of dealing with stress such as: (1) removing unnecessary stressors from our lives; (2) not allowing

certain neutral events to become stressors; (3) developing a proficiency in dealing with conditions that we do not want or cannot avoid; and (4) seeking relaxation or diversion from the demand. We must learn to recognize overstress (hyperstress) when we have exceeded the limits of our adaptability and understress (hypostress) when we suffer from lack of self-realization.

Our goal should be to strike a balance between the equally destructive forces of hypo- and hyperstress, to find as must eustress as possible and to minimize distress. Stress is a disease problem that people must learn to deal with at an early age or suffer the sudden and fatal consequences. We do not know much about the effects of stress in children. Allen (1983) suggests that until recently, researchers have assumed that stress is not a problem for children. But there is evidence to show that maternal stress affects fetal growth and development. Physical damage from stress may begin before birth and some researchers have suggested that the trauma of birth itself is such a significant stressor that may affect the entire course of an individual's life.

Though internal and external factors influence or even determine some responses, we do have limited control over ourselves. It is the exercise of this control, or lack of it, that can determine whether we are made or broken by the stress of life.

Health and Stress

Is stress related to illness? Bieliauskas (1982) says the answer appears to be yes, but the strength of the relationship has not been clearly demonstrated. Doctors can not say for certain that stress is the direct cause for many conditions we tend to relate to stress. Cleaver and Eisenhart (1982) state that most authorities agree that negative body responses to stress can include migraine and tension headaches, allergies, ulcers, ulcerative colitis, diarrhea, constipation and mental illness. In coronary heart disease, stroke, hypertension, cancer, diabetes, obesity, and accident proneness, stress is thought to be a contributing factor.

Psychosomatic disorders, as defined by Blom et al. (1986) are physical illnesses that are brought on by a specific biological predisposition for an individual to respond to physical, social and

psychological factors by becoming ill. These disorders in childhood include asthma, eczema, dermatitis, peptic ulcer, ulcerative colitis and rhuematoid arthritis. Other health related stressors include chronic illness and hospitalization. Somatic behavior disorders such as vomiting, enuresis, stuttering, shallow breathing, tremors, sweating and feelings of weakness are reactions to anxiety and stress, according to Schultz and Heuchert (1983). Affective and cognitive reactions to anxiety and stress include irritability, depression, forgetfulness, distractibility and sleep disturbances.

If stress is prolonged and severe, the results may be heart problems, high blood pressure or similar physical reactions. The two key words are prolonged and severe. Chandler (1982) states that most healthy people seem able to tolerate a severe stress for a limited period of time. They likewise seem to be able to cope with minor stress over a longer period. But the combination of severe stress over a prolonged period of time is especially dangerous.

Davis (1983) describes how sudden stress affects the heart as it interrupts the steady, regular electrical activity of the heart, resulting in a

rhythm disturbance called an arrhythmia. Although some arrhythmias are hardly noticed by the patient, others may cause the heart to stop pumping and prove to be fatal. Jones, Shainberg, and Byer (1986) describe the warning signs of excess stress as being difficulty in thinking clearly, nervousness, impulsive behavior, a strong urge to hide or cry, easily tired, depression, and a loss of appetite or eating too much.

Stress is something people must come to terms with if they are to live, to love, and to work effectively. While it is true that stress is an inevitable part of living, excess stress can be damaging. It can cause extreme emotional reactions leading to changes in attitudes and behavior. Stress can cause problems in living. While adults have many resources to draw upon in coping with stress, the options available to the child are much more limited. Because of their immaturity and lack of adult reasoning powers, their tolerance for stress is much lower. Children are especially vulnerable to stress and their ways of handling it often cause additional problems for themselves and others.

Family Stress Factors

Children experience stress from family related situations and the effects can be quite severe. Blom et al. (1986) discuss several family related stressors in children including a drinking problem in the family and being latch key children. When parents divorce, the child is afraid of being abandoned, as well as feeling some responsibility for their parent's difficulties. These reactions are typical and are extremely confusing and stressful for children.

According to Brophy (1986), three in five children born today will live with a single parent by age 18. This situation offers less financial security and children are required to accept more responsibility in most cases. In the last 15 years, 15.6 million marriages ended, affecting 16.3 million children under 18. Along with these rising statistics, the number of preschoolers living with a single divorced parent soared 111% in the last 15 years. The average time before remarriage is three years, and four out of five divorced parents remarry. Blom et al. (1986) state that stepparents who do not possess the qualities of the absent but well-loved

natural parent may have a hard time winning respect from the skeptical or fearful child. The child may feel left out and anxious. Children who have become accustomed to adult like conversations with one parent and who enjoyed the role of confidant feel slighted by the new parent.

Losing a parent or any family member by death causes stress and confusion in a child. Blom et al. (1986) state that 9% of the children in the U.S. will lose a parent before age 18. Children have become a yielding target for the frustrations, conflicts, projections, unresolved hates, and smoldering anger of the adults who so often tyrannically bestride their lives through abuse and neglect.

According to Brophy (1986) seven million white children and four million black children under the age of 15 in the U.S. live below the poverty line. In unemployment, stress is sudden. Langer (1980) suggests that stress-related symptomatology is produced not only by the unpleasant nature of the experiences but by the fact that some persons do not have resources and skills that enable them to solve the problems with which they are confronted. For persons in lower socioeconomic status level (those

with the least resources and fewest marketable skills) unemployment is not a one time thing but a chronic aspect of their experience.

There is no self-esteem threat more powerful than rejection by an intimate partner. According to Langer (1980), marital disruption studies indicate that separation and divorce represent profoundly stressful events, associated with a wide range of physical and emotional disorders. The effect of low self-esteem as a stressor in itself should be seriously considered, because it represents an everyday experience of devaluation and rejection in interactions with other persons. A low-income mother's ability to cope is hindered by her environment. McCubbin and Boss (1980) suggest that what may seem like poor coping strategies are often the result of severely limited options. Children living in this kind of environment see only the stress that mother is enduring and thus the child is stressed. Brophy (1986) states that 1/2 of all poor children grow up in households headed by women and 1/4 of poor black children live in homes where mother never marries.

Nicholas Stinnett from the University of Nebraska defines characteristics of happy families, stated in

McCall's (1985) article. Happy families spend much time together and have good communication patterns. They also have a very high commitment to each other and support each other in dealing with a problem. Most importantly, happy families express a lot of appreciation to one another and make each member feel good about themselves.

Stress in Children

Most of the pressures on children today stem from America's new lifestyles (Brophy, 1986). The average cost of raising a child born in 1984 to age 18 has jumped to $140,927, according to a report by the Conference Board, a business-research group. Thirty years ago, it cost 1/3 as much. The annual bill for one year of child rearing consumed 29% of the median family's budget in 1984, compared with an estimated 11% in 1966.

Today, half of the children under 13 live with parents who both work and seven million children nation wide are cared for in family daycare homes or in child care centers. Sending children under age three to daycare centers is more stressful for them than staying home with a parent or a familiar

babysitter. While research indicates that good quality daycare is not harmful to the very young, finding a quality center for a child can be difficult. Representative George Miller (D-Calif.), Chairman of the Select Committee on Children, Youth and Families says that 75%-90% of family daycare facilities are unlicensed or unregistered (Brophy, 1986).

Any time a child loses a link with security, stress is felt. Children react to separation by being aggressive toward siblings and peers, irritable, and having temper tantrums. Kraft and McNeil (1985) explain that young children imagine that their parents are going on a trip and will never return for them.

Children experience considerable stress because their parents are victims of stress. Parents relieve some of the anxieties in themselves by stressing their children. While children develop slowly through certain stages that relate to age, Kraft and McNeil agree that parents rush children prematurely before they are "ready" for certain experiences. Children have a right to develop at their own pace and this parental pressure to grow up fast is stressful. Parents tend to rush their children into excelling, yet they do not spend much quality time with their

children. A recent study by the University of Michigan for Social Research found that working mothers spend an average of 11 minutes of quality time (defined as exclusive playing or teaching) with their children on weekdays and only 30 minutes per day on weekends. Fathers spend eight minutes of quality time on weekdays and 14 minutes per day on weekends. Surprisingly, non-working mothers were found to spend only 13 minutes of quality time with their children each day (Brophy, 1986).

The capacity of a child to respond adaptively to an event or a condition varies widely. The greater the number or severity of challenging or threatening events or situations, the more this capacity is tested. Chandler (1982) has defined four responses of children to stress. These are the dependent response, the impulsive response, the passive-aggressive response and the repressed response.

(1) The dependent response--Children have regressive habits, childish mannerisms and immature speech. They are passive, immature and lack independence in many areas of functioning. These children usually avoid taking the initiative in learning and social situations. Some children, while

dependent, are less passive and more assertive, adopting a demanding manner to have their needs met. These children are often headstrong, defiant, selfish and willful, seeking immediate need gratification.

(2) The impulsive response--The essential problem with a child responding impulsively is the lack of appropriate controls. This child is easily excitable and restless, yet is often seen as inattentive and distractable in school.

(3) The passive-aggressive response--The children responding in this manner are often characterized by school under-achievement and indifference about their poor grades in school. Some adopt an obstinate, uncooperative attitude while others are overly compliant and agreeable, yet fail to keep promises or follow through on assigned work.

(4) The repressed response--The shy, reserved, and withdrawn children respond in this repressed manner to stress. They seldom initiate conversations and are prone to daydreaming. They show fears, worries and overly sensitive reactions, making it difficult to make decisions and to tolerate criticism.

Stress symptoms in children, defined by Saunders and Remsberg (1984) include neckaches, backaches,

headaches, restlessness, difficulty concentrating, and difficulty sleeping. Unexplained tiredness, chronic irritability, nail biting, hair pulling, and habitual picking at sores and scabs are also stress symptoms in children. Children cannot be expected to realize the dangers of strain, much less take any steps to correct them. They become victims of the society in which they find themselves. Adults must set the pattern.

Blom, Cheney and Snoddy (1986) have devised a list of potential stressors of elementary school children, by location. These stressors include the environments of the home, school, neighborhood and the community. (See Appendix A). David Elkind (1981) developed a Child's Stress Inventory which assesses stress a child has endured during the year, giving each a numerical value. The total score is used to predict the child's future health and any foreseeable changes in his health and/or behavior. (See Appendix B).

Nash (1985) says to reduce stress at school, voices may be kept low, the atmosphere of the rooms pleasant and the relationship between the teacher and student friendly. Time may be allowed for children to pass leisurely around the room. It is a

responsibility of the school, says Nash, to create an atmosphere that will be conducive of confidence and composure.

There are a small number of children who function exceptionally well in the face of severe stresses. These children share certain qualities defined by Pines (1985) and Blom et al. (1986) as being socially at ease and making others feel comfortable too, they know how to attract and use the support of adults and they actively try to master their environment and have a sense of their own power. In fact, they often volunteer to help others they believe to be even needier. These children develop a high degree of autonomy in early life and get involved in various activities and generally do well at most things they undertake. For the other children who are not psychologically resilient to stress, Bird, Cripe, and Morrison (1980) suggest we must provide knowledge regarding the psychophysiological effects of stress. This education cannot wait until adolescence or adulthood as the effects of stress tend to accumulate by late adolescence.

Stress in the Classroom

Children spend approximately 7,000 hours in school from kindergarten to grade six, according to Evans (1982). Except for the bedroom, there is no single enclosure in which the young child spends a longer amount of time than in the classroom. Stress is conceptualized as an outcome reflecting the lack of congruence between individual needs and goals with the opportunities and constraints afforded by the school setting. When environmental constraints directly or indirectly thwart such goals or expectations, the individual attempts to cope with the stressful situation. Manifestations of this process in the school setting may include changes in teaching methods, class disruptions or participation, persistence, spatial utilization patterns, task performance or attention, and distraction.

Psychological stress in school, as defined by Schultz and Heuchert (1983) is anything that a student perceives as a threat, either to his survival or to his self-image. Moreover, the threat does not need to be real--it only needs to be real to the individual. He must see it as a threat although in truth it may

not be. Young (1985) lists likely sources of stress in children from Kindergarten to Grade Four, stating stressors and signals for each age group. (See Appendix C). Schultz and Heuchert have defined a three-step school stress sequence. Step 1 is the occurrence of a school event. Step 2 is the internal assignment of meaning to the school event. Step 3 is the occurrence of internal and external responses to the event.

Peer bullying, antisocial peer pressure, teacher intimidation, threat and punishment and unruly classrooms are examples of aggressive behavior which cause stress for school children. The effects of noise on academic achievement may arise from the disruption of teaching activities rather than from some enduring change in student motivation or competence. Jones (1983) suggests that poor auditory discrimination and reading ability were found by Cohen, Glass, and Singer (1973) to characterize children who lived in the noisier apartments near a busy freeway. Moreover, this deficit was greater for those children who had lived in the noisy apartments longer.

It is important to realize that school life, like any other form of human experience, must necessarily generate a certain degree of stress and strain. Tension is not, of itself, undesirable, according to Mays (1983). It is merely that too much tension over a period of time becomes psychologically damaging. We must also remember that individuals are very different and that an experience which for one child is bearable and even stimulating may, for another child, prove crippling.

Mays (1973) says that more needs to be said about the kinds of problems that can and do arise in formal education and about the personal and social difficulties that the school itself can create. All too frequently, difficulties that a school child experiences are attributed either to his own shortcomings or to some failure on the part of the parents to perform some necessary task at the appropriate time and in the appropriate manner. Mays suggests that it should also be clear that the school itself is sometimes to blame for student's maladaptation. Arent (1984) lists symptoms of stress for grades one through six in categories of academic

stress, classroom, and school management stresses, child-teacher relationships, peer relationships and personal behaviors. (Appendix D).

Schools hurry children by labeling them too quickly and too early says Elkind (1981) for management rather than pedagogical reasons. Sometimes such labeling and its consequences for the children involved are close to being criminal. Many young children are diagnosed as learning disabled or retarded when in fact they have limited vision or hearing or come from a bilingual home. It's much easier, says Elkind, for teachers and administrators to label such children and to relegate them to some special program than it is to deal with their special needs. Administrators are also under pressure to produce better products. The emphasis on standardized tests has pressured children to yield higher scores for the sake of teachers and administrators.

Stress and a sense of threat become particularly disconcerting when the child feels he has no control over the situation. By taking aggressive action, he can feel at least partially in control and at the same time mentally distancing himself from a learning task he feels is beyond his ability. Johns and Johns (1983)

state that children do not understand when their bodies react to stress, nor is it likely they know how to deal with it. They may not be aware that just talking about a stressful situation can help relieve it, but it may be hard to find someone who will listen.

Children respond to stress by fighting back any way they can. Perhaps a verbal attack on a child or teacher reduces discomfort. Their response seems appropriate to the way their nervous system is making them feel. It also distracts them and others from the task they are having trouble completing. Because negative responses to stress are rarely seen for what they are, children making them are more often than not punished for misbehavior. Rather than seeing a child's lack of attention as his way of coping with stress, some teachers read it as laziness and scold and humiliate the child.

At home, parents respond to school misbehavior in ways that increase the child's already high stress level. When parents and teacher take no action to help a child cope with stress, when they punish rather than attend to his natural response to threat, they set into motion a vicious cycle that can have serious

consequences for his physical, emotional, and intellectual development.

Youngs (1985) states that if we could design a perfect school environment, we could emphasize these virtues:

Identity--A child needs to be considered a unique person in his or her own right, to be noticed and recognized as special.

Belonging--Every child needs to belong to someone or something, to be accepted and wanted.

Power--Each child needs to achieve, to feel potent.

Meaning--All children need events in their lives to add up to something. The meaning adds up to self-acceptance, self-esteem, high expectations and hope for the future.

Change--Every child needs variety and positive change. Variety helps children avoid falling into ruts and helps them to grow continually.

Children under stress desperately need an oasis--some activity that they can throw themselves into and feel successful. Schools can provide this most effective protective factor for children under stress.

How can teachers help children cope with stress? The goal is not to shelter them from stressful situations but to help them develop the ability to respond to stress in a positive, constructive way (Johns & Johns, 1983). When a child responds constructively to stress, the teacher should immediately show approval for these efforts. This further diminishes his sense of threat and helps him deal successfully with future stressful situations.

Stress in Teaching

Teacher burnout is a painful and destructive response to excessive demands on their strength, energy and resources. It manifests itself in many different ways which vary in symptom and degree from one teacher to another. Greer and Whitehead (1984) list typical signs of teacher burnout as being exhaustion, fatigue, quickness to anger, mild depression, more likely to be negative and cynical, complain about boredom and overwork and are said to be increasingly rigid and inflexible.

D'Arienzo, Moracco and Krajewski (1982) state four ways stress is generated in teachers.

(1) The teachers' fear that he or she will not be able to live up to his or her own expectations, or to the expectations of others,

(2) the habit of setting overly high or cynically low expectations,

(3) the feeling that the personal achievements and successes of yesterday are not good enough for today, and

(4) the teacher's fears that they will be found wanting because they are insufficiently flexible and innovative in their instructional methods.

In 1985, Harris, Halpin, and Halpin did a study with teachers and their type of pupil control orientation. The researchers use Willower's (1975) definition of pupil control orientation as being a point on a continuum ranging from authoritarian to humanistic. Teachers with an authoritarian pupil control orientation stress the maintenance of order and strict pupil control, impersonality, one way communication, and a distrust of students. Teachers with a humanistic orientation emphasize the psychological and sociological basis of learning and behavior, open channels of communication, have an accepting, trusting view of students and have

confidence in the student's abilities to develop self-discipline and responsibility. An individual teacher's pupil control orientation may fall anywhere between those two extremes.

Harris et al. (1985) studied the levels of stress of these two extreme types of teachers and their students, finding that authoritarian orientation teachers experienced higher levels of stress in dealing with group instruction as compared to humanistic orientation teachers. Teachers should be aware of the negative effects stress can have on themselves, their students and their teaching performance.

Teacher burnout can cause or exacerbate child burnout, and serve as a vehicle for the teacher to more empathically understand child burnout. Schultz and Heuchert (1983) also suggest that teacher burnout can serve as a model against which to compare both symptoms and possible alternatives for solving this complex problem on behalf of the children. Teachers under stress are apt to act in ways that greatly increase classroom tension. They are likely to be less patient, more intense in enforcing behavioral standards and more rigid in their teaching. They are

quick to scold and humiliate and they may be unaware of the messages they convey through sighs, frowns, and grimaces.

If teachers are prone to burnout in school, so too are children. If teachers need to learn ways of helping themselves relax to meet stressful school events, so too do children. If teachers need to learn successful ways of personal problem solving in order to adaptively cope with life in school and in general, so too do children.

Relaxation

Children today are under tremendous pressure from school, home, and the environment. Other than parents, teachers can and should play a significant role in teaching children how to deal with their feelings and stresses. Schultz and Heuchert (1983) have designed a training program to help children learn adaptive skills for managing stress. The program is based on the following principles:

(1) A teacher should develop an understanding of the whole child and his or her unique need to learn flexible self-management skills. The teacher will need

to acquire a commitment to a learning environment where relationships with students are developed based on caring and concern and mutual trust. The teacher must also be willing to learn about children and from children, and to provide a climate whereby children can develop the necessary skills for personal growth.

(2) A teacher should help children develop a cognitive awareness of the nature of anxiety and stress, along with different ways of coping with them. It is important that children learn more about who they are, what they are comprised of and why they behave as they do. Part of coming to know the self includes learning to discriminate what is painful and why. The child will learn how to better manage the discomfort of painful life experiences.

(3) A teacher should help children to learn the process of problem solving so they can do something about the way they feel and act.

(a) Be a self-watcher--"What seems to be going on in this situation?"

(b) Set your goals--"What is it that I want to do something about?"

(c) Keep track of progress--"How am I doing with this problem?"

(d) Help yourself keep going--"I feel good about this. Time for a pat on the back!"

(e) Evaluating success: Reaching your goal--"I feel confident that I've got things under control. It's time to go on to other things."

(4) The teacher should guide the child in developing plans and skills that lead to more effective coping. This would include training in relaxation as a critical self-management skill. Learning to elicit the relaxation response, and learning to function in a relaxed yet attentive manner are central to the stress management process.

Relaxation Response

Benson (1975) states that each of us possesses a natural and innate protective mechanism against overstress which allows us to turn off harmful bodily effects, to counter the effects of the fight or flight response. This response to overstress which brings on bodily changes that decreases heart rate, lowers metabolism, decreases rate of breathing, and brings the body back into what is probably a healthier balance is called the Relaxation Response. The purpose of any

kind of relaxation technique should be to induce a relaxation response (Humphrey & Humphrey, 1981).

Benson has advocated a technique that combines the elements of relaxation and meditation. The aim is to develop a relaxation response which decreases and counteracts the increased activity of the sympathetic nervous system associated with the physiological stress response. He sees that regular practice of the relaxation response as useful in managing the stress endemic in day to day living.

Chandler (1985) reports a study done in 1982 by Day and Sendak using Benson's relaxation techniques with groups of elementary school children. Subjects in a treatment group practiced relaxation each morning for ten minutes for six weeks, while a control group was given reading instruction. The subjects in the treatment group scored lower on a general anxiety scale and test anxiety scale than the control group. A follow-up study three weeks later showed treatment effects disappeared.

Visual Imagery

Mental relaxation includes guided fantasy imagery and meditation and concentration. Guided imagery uses

fantasy "trips" in which the children imagine or visualize peaceful and restful places or situations. Auditory and/or visual suggestions are given of a fantasy or of passive nature scenes. Zipken (1985) states that these experiences focus concentration and have a positive effect on creative thinking abilities. Zenker and Frey (1985) report research which suggests that competent readers use visual imagery in their reading to internalize what they read and thereby enhance their comprehension.

Less competent readers generally have difficulty developing a visual image because they are unable to filter out distractions that tend to shatter the image. Zenker and Frey (1985) say that Ross (1977) suggests that inability to filter distraction is the primary factor in learning disabilities. Levine (1976) found that relaxation training minimizes the difficulty in attending to an educational task, thereby allowing students to achieve an educational objective.

Zenker and Frey (1985) conducted a study with tenth grade students reading on a fourth grade level to see if using relaxation techniques and visual image training would improve poor readers' comprehension and literal recall of narrative prose. The researchers

developed a ten day program of exercises in relaxation techniques and visual imagery training which was presented to students daily on audio tapes, with each tape lasting ten minutes.

They taught students two relaxation techniques: one emphasized slow, deep breathing with instructions to think the word "calm" while exhaling and another technique in which students alternatively tensed and relaxed each hand, becoming aware of the sensations as they did so. While students were relaxed, the researchers instructed them to imagine concrete, easily discernable objects. Gradually they were asked to imagine more abstract objects like clouds in a variety of shapes. After the training, a test was administered to this experimental group with the instructions to imagine the stories as they read them. The group scores were higher than the control group and the experimental group was more cohesive and more interested in general school progress.

Autogenic Relaxation Training

Frey (1980) conducted a study of reading disabled children in West Germany. These children had high levels of tension, anxiety, mood swings, reduced

ability to concentrate and poor retention. He used a technique called Autogenic Training which he said helps reduce feelings of insufficiency and anxiety, stabilizes moods, and increases concentration and retention.

Frey (1980) instructed an experimental group each day for ten minutes over a three week period. He began with progressive muscle relaxation, asking the children to tense up muscles in hands, arms, shoulders, face, neck, chest, abdomen, legs and feet. Then he had a musical quiet period while the children rested their heads on their desks, listening to a solemn piece of music. Imaginative experiences followed as the children closed their eyes and thought of a peaceful scene. The test results indicated that this Autogenic Training improved the children's ability to concentrate which did lead to greater academic progress.

Deep Breathing

When teaching deep breathing techniques to a child, a teacher should make him conscious of his ability to control his breath. Show the child how to inhale slowly and deeply, then how to let the breath

out slowly and deeply. Tell him to empty his lungs, to feel all of the air come out then breathe in to slowly fill them up again.

Girdano and Everly (1979) have summarized their recommendations for deep breathing exercises.

Very Deep Breathing--Breathe in and out as deeply as possible . . . In . . . hold five seconds . . . and out . . . Force the breathing! Deeply in . . . and deeply out.

Deep Breathing--Now slacken off the breathing and breathe in and out more easily. In . . . and out . . . and in . . .

Normal Breathing--Breathe quite normally now, and follow your breathing movements with your thoughts . . . Concentrate on the breathing and put everything else out of your mind.

Saunders and Remsberg (1984) developed a three-step Quick Relax response to teach children.

Step One: Become aware that you are upset. "Body signals"--headaches, sweaty palms, fast heartbeat, upset stomach.

Step Two: Smile inwardly and tell yourself that you can calm yourself down. The child tells himself there is something he can do.

Step Three: Breathe slowly and easily through imaginary holes in your feet. Imagine the feel of cool air flowing up through imaginary holes up through the legs and stomach. Then push that "stressful air" back down and out the holes.

Physical Exercise

Physical exercise is a natural mechanism of the body for preventing the harmful effects of stress. It effectively detoxifies the products of the fight or flight arousal and terminates the lingering physiological changes that can ultimately wear out the body. At the same time, it strengthens the internal organ systems. Physical exercise is irreplacable in promoting a high-level mental and physical well-being (Allen, 1983).

Progressive Relaxation

Tension, produced by stress, affects the muscles of the body, causing them to contract. Since the opposite of contraction is relaxation, the tensing and releasing of muscles eliminates muscle contractions, resulting in a feeling of deep relaxation.

Progressive relaxation is a technique used to induce nerve-muscle relaxation, also called

neuromuscular relaxation. Developed by Edmund Jacobsen and described in his book "Progressive Relaxation," Greenberg (1984) summarizes this technique as being originally designed for hospital patients who appeared tense. Jacobsen, a physician, observed that tense patients, as evidenced by such small muscle movement as frowning or wrinkling the forehead, did not recuperate quickly nor well. Jacobsen taught these patients a series of exercises that first required them to contract a muscle group, then relax it, moving (or progressing) from one muscle group to another.

The purpose of first contracting the muscle is to teach people to recognize more readily what muscle tension feels like. The purpose of the relaxation phase is to become familiar enough with this sensation so that it can be voluntarily induced. Progressive relaxation begins with the muscle groups in the arms, and when this group is relaxed, the relaxation proceeds to the muscles in the face, shoulders, chest and back, and in the thighs, calves and feet, as reported by Rosen (1977). Jacobsen believes that the mind can be relaxed by first relaxing the body.

Benson (1975) defines progressive relaxation as the relaxation of voluntary skeletal muscles which

are all muscles over which we have conscious control. This technique seeks to achieve increased control over skeletal muscle until a subject is unable to induce very low levels of tension in major muscle groups. Since the work of Jacobsen, relaxation has been shown to have a calming effect, reducing heart rate, respiratory rate, and skin conductance.

Woolfolk and Richardson (1978) state that tense muscles form a shield that protects the vital organs of the body from injury. A moderate amount of tension in the muscles makes them more efficient, better able to execute rapid movements. Those of us who are not regularly engaged in physical combat derive no benefit from this tendency of our muscles to tense up when we are experiencing uptight emotions. Progressive relaxation is the technique most often referred to in literature and most widespread in application. Humphrey and Humphrey (1981) surveyed teachers and found that 1% of teachers use this technique. Humphrey and Humphrey (1984) have developed a creative progression relaxation exercise to reduce stress in children. The procedure begins with the muscles of the head, face, tongue and neck, then moves to the

trunk, upper extremities and lower extremities. The directions of the relaxation technique are written in such a way that children may be better able to follow along and become so familiar with the technique so they can relax themselves when they become tense. (Appendix E).

Prerequisites for progressive relaxation include a quiet, disruption-free environment, dimmed lights, and a warm room. If the environment is noisy, cottonballs can be used for the ears. Shoes should be removed and any tight clothing loosened. Subjects should lie on the floor with a small pillow behind the head to make the position comfortable. Later, the subjects will be able to relax particular muscle groups when seated or standing in line (Greenberg, 1984; Milsum, 1984).

If relaxation techniques are practiced often by children and if they experience the relieving effects, mental health and physical health problems may be reduced considerably as they grow into adolescence and adulthood. By training children to detect stress in their bodies and how they can lessen the tension, educators are giving children a precious gift of a

learned coping skill that may help them deal with stress for the rest of their lives.

Section III

METHODOLOGY

Progressive relaxation of the face, arms, trunk and legs reduces tension in the body and helps the mind and body return to a balanced state. By relaxing, children become aware of the stressful feelings of their body before relaxation and after, being better able to detect stressful symptoms in their bodies in the future.

In order to become familiar with stressors which are most prominent among the students of the school where this research study was conducted, a survey taken from Blom, Cheney and Snoddy (1986) of potential stressors as identified by teachers, was administered to 31 elementary school teachers. (See Appendix F)

Overview of the Study

The purpose of this study was to determine if training first grade students to progressively relax their bodies would result in their being more relaxed and therefore causing fewer classroom disruptions.

In order to do this, 22 students were randomly divided into a control group and an experimental group. The experimental group was trained in relaxation techniques each morning for 15 minutes over a period of 10 days. The number of classroom disruptions for each group were recorded the week prior to the treatment, during the second week of the treatment period, and during the week after the completion of the treatment.

Statement of the Hypothesis

There will be no significant difference in the number of classroom disruptions between the children who were trained in progressive relaxation and those who were not.

Sample

The 22 first-grade students, ranging in age from six to eight years old, were from low-middle to high-lower income homes. The class consisted of eight girls and 14 boys.

Instrumentation

A frequency count chart was used to measure the number of classroom disruptions exhibited by members of each group. The group members were listed on the top of the count chart. The teacher recorded on the chart incidents of hitting another child, tattling, interrupting the teacher while she was speaking, talking back or arguing with the teacher, and acts of defiance. (See Appendix G for sample chart.)

Experimental Design

The experimental design chosen to test the hypothesis was the Randomized Control Group Pretest Posttest Delayed Posttest Design. This is illustrated in Table 1.

This design allowed for a comparison of the frequency of classroom disruptions before and during the treatment and during and after the treatment.

Table 1

Randomized Control Group Pretest Posttest

Delayed Posttest Design

Assignment	Group	N	Pretest	Independent Variable	Posttest	Delayed Posttest
R	E	11	Y_1	X	Y_2	Y_3
R	C	11	Y_1	-	Y_2	Y_3

R: Random Assignment for Groups

E: Experimental Group

C: Control Group

N: Number of Students in Each Group

X: Progressive Relaxation

Y_1: Pretest/Frequency Count of Classroom Disruptions

Y_2: Posttest/Retention Post Measure/Frequency Count of Classroom Disruptions

Y_3: Delayed Posttest/Frequency Count of Classroom Disruptions

Procedures

The 22 children were randomly assigned to two groups with 11 children in each group. Classroom disruptions were included on two frequency count charts, one for each group with the group members listed on each. Each time any of the classroom disruptions occurred, a mark was made for that behavior on the chart of that child's group. The children did not know about the chart or the experiment. The frequency count was done for five days prior to the beginning of the progressive relaxation training.

Humphrey and Humphrey's (1984) creative progressive relaxation method (see Appendix E) was administered to the experimental group at the beginning of each school day for 10 days. A frequency count of classroom disruptions was taken during the last five days. During the relaxation sessions, the lights were off, the blinds open, and the room comfortably warm. (See Appendix H for lesson plan.) A week after the training period, a frequency count of classroom disruptions was taken to test for retention of the relaxation training.

Method of Data Analysis

To test the hypothesis for this experimental study, data was collected and analyzed using the Independence of Categorized Variables chi square. This chi square was testing for a significant relationship between progressive relaxation and classroom disruptions at the .02 level of significance.

Section IV

RESULTS AND CONCLUSIONS

This section of the study includes an analysis of the results of the experimental procedures. The limitations and observations of the study are cited. Conclusions drawn from this study are discussed.

Purpose

The purpose of this study was to determine if training in progressive relaxation would decrease the number of classroom behavioral disruptions. Students were randomly assigned to either the experimental or control group. A frequency count of classroom behavior disruptions was taken for each group for the week prior to the treatment. During the second week of the treatment period, another frequency count was taken and these statistics were compared (See Appendix I) using the Independence of Categorized Variables chi square. A week after the treatment period, another frequency count of classroom disruptions was taken, after progressive relaxation

was not mentioned to the experimental group. The classroom disruption counts during and after the treatment were also compared to test for a significant relationship in the following hypothesis.

Hypothesis

There is no significant difference in the frequency of classroom disruptions for first grade students who are trained in progressive relaxation and those who are not. The statistical results are presented in Table 2.

The critical chi at .02 level of significance with one degree of freedom is 5.41. When the number of classroom disruptions before and during the treatment were used in the Independence of Categorized Variables chi square, the calculated chi was 5.61, thus rejecting the null hypothesis. There is a significant difference in the number of classroom disruptions between first grade students who were and were not trained in progressive relaxation.

Table 2

Group	N	B.T.	D.T.	A.T.	x^2 .02,1	#1 x^2	#2 x^2	#3 x^2
E_R	11	59	20	15	5.41	5.61	.764	10.6
C_R	11	81	57	60				

E: Experimental Group

C: Control Group

N: Number of Students

B.T.: Frequency Count Before Treatment

D.T.: Frequency Count During Treatment

A.T.: Frequency Count After Treatment

x^2 .05,1: Critical Chi

#1 x^2: Results of Chi Square comparing B.T. and D.T.

#2 x^2: Results of Chi Square comparing D.T. and A.T.

#3 x^2: Results of Chi Square comparing B.T. and A.T.

The number of classroom disruptions during the treatment and after the treatment were used in the Independence of Categorized Variables chi square, producing a calculated chi of .764. The results, showing no significant difference in the number of classroom disruptions, suggests that the progressive relaxation training was retained by the experimental group.

Survey Results

In order to determine stressors which may affect the children of the study group, a survey was given to 31 teachers from kindergarten to the seventh grade. The teachers were asked to choose 10 of the 39 potential child stressors (See Appendix F) which they felt were stressful to their classroom children. Moving from school to school, divorce, peer pressure, family relations and relations with peers were stressors identified by 50% or more of the teachers surveyed.

Discussion

Children living in our stressful world today are highly susceptible to the ill effects of stress as

their understanding of stress and coping skills are quite limited. Stress creates tremendous pressure on children as they deal with stressful situations at home and at school each day. Children as well as adults need to understand the harmful effects of stress, how to recognize stress in their bodies and how to deal with it.

The information from this study supports the hypothesis that training children in progressive relaxation techniques lowers the number of classroom disruptions, allowing the children to enjoy more relaxed and successful days. After the initial treatment period and in order for the children to successfully use the technique, periodic group sessions should be held.

Limitations

The results of this study may have been influenced by variables which were beyond the investigator's control.

1. The length of the study was limited to five weeks.

2. Each group consisted of 11 students.

3. Small pupil/teacher ratio may have affected the results.

4. Of the five children in the study group who are behavior problems, three were randomly assigned to the control group.

General Observations

The investigator noted students' responses during the study's treatment procedure. The following observations were made.

1. The experimental group was reluctant at the beginning of the treatment but were eager to begin each morning by the second week.

2. The control group seemed unconcerned with the extra attention being given to the experimental group.

Implications

Progressive relaxation should be used in classrooms at every level as part of the homeroom procedures each day. The longer children are exposed to and trained in this technique, perhaps retention and transfer of the skill will be more likely to occur. The investigator was less stressful during the treatment period. On each day's frequency count, the

investigator recorded on the charts if she was very stressful, slightly stressful, or not stressful during that day. Before the treatment period, the investigator was very stressful four out of the five pretest days. During the 10 day treatment period, only two days were very stressful. After the treatment, two out of the five Delayed Posttest days were very stressful. If educators really want to teach children a useful skill that may eventually save them from an early death because of stress-related health problems, we should teach children how to relax.

When counting the number of classroom disruptions, the investigator could have unintentionally let the self-fulfilling prophecy enter into the experiment. The experimental group seemed to enjoy the experiment because of the content and not because they were chosen to do something special. Jason refused to participate during the first three days saying it was stupid and the children looked silly. On the fourth day, James told Jason to give it a try because it really does make him feel better. Jason finally gave in and enjoyed himself while learning about stress.

Additional research needs to be done in this area, for longer periods of time. Classroom disruptions may have decreased more if the treatment period was longer. There are many different types of relaxation techniques which, if combined, may produce a more relaxed atmosphere. Children may need to be trained in various techniques in order to feel comfortable in relaxing themselves when feeling stressful. This experiment proved that progressive relaxation decreases the number of classroom disruptions in first grade students, but could it prove the same with seventh grade students? If the same results occur, then progressive relaxation needs to be incorporated into the school day, for everyone's sake.

Since the treatment does have an effect even after completion, progressive relaxation training, even for two weeks, is giving children an opportunity to understand what stress is, what it feels like in their bodies, and how they can alleviate it. Teachers may not understand the usefulness or believe that spending a few minutes each morning with progressive relaxation may help their children, yet this

experiment suggests that training children for as little as two weeks gives them enough understanding and practice to initiate the process when needed. A little bit of classroom time is a small price to pay for a gift that we can give children which will help them to survive in our world.

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Appendix A

Potential Stressors of Elementary Children

Potential Stressors of Elementary Children,

by location

(Blom, Cheney & Snoddy, 1986)

Home

death of parent

divorce of parents

marital separation

death of a sibling

jail sentence of parent

marriage of parent

discovery of being an adopted child

increase in number of arguments between parents

birth of a brother or sister

increase in number of arguments with parents

change in parental occupation requiring absence from home

mother beginning work

jail sentence for parent for 30 days or more

serious illness requiring hospitalization of brother or sister

addition of a third adult to the family

loss of job by a parent

death of a grandparent

brother or sister leaving home

pregnancy in unwed teenage sister

change in parent's financial status

decrease in number of arguments with parents

decrease in number of arguments between parents

alcoholic parent

mental illness in family

Home (continued)
special events (such as birthday)
psychological abuse
poverty
having regular chores at home
sibling competition
physical abuse

School
failure of a grade in school
move to a new school district
beginning school
suspension from school
beginning another school year
giving a class report
not making a perfect grade
ridiculed in class
sent to principal
poor report card
wetting in class
tests
teacher behavior
new teacher
reassignment of teacher
substitute teacher
relations among school staff
adverse publicity about school
relations among parents and school staff
homework
tardiness/absence
child/teacher conflicts

School (continued)
confusion about directions in school
inappropriate school placement
being labeled
parental pressure to achieve

Neighborhood and Larger Community
death of a close friend
change in acceptance by peers
losing a game
picked last on team
peer pressure
family life style
going to the dentist
becoming a full member of a church
religious indoctrination
authority figures
ethnic/religious discrimination
nuclear threat
serious illness with hospitalization
becoming involved with drugs and alcohol

Any Location
outstanding personal achievement
suspected of lying
caught in theft
criticism
sex relationships/questions
acquiring a physical deformity
having a visible congenital deformity
getting lost

Any Location (continued)
going blind
accident/injury
undiagnosed physical problems
physical motivation
noise levels
losing something
punishment/rewards
holidays

Appendix B

Child's Stress Inventory

Child's Stress Inventory

David Elkind The Hurried Child 1981

Stress (this year)	Points	Child's Score
Parent dies	100	
Parents divorce	73	
Parents separate	65	
Parent travels as part of job	63	
Close family member dies	63	
Personal illness or injury	53	
Parent remarries	50	
Parent fired from job	47	
Parents reconcile	45	
Mother goes to work	45	
Change in health of a family member	44	
Mother becomes pregnant	40	
School difficulties	39	
Birth of a sibling	39	
School readjustment	39	
Change in family's financial condition	38	
Injury or illness of a close friend	37	
Starts a new extracurricular activity (clubs, etc.)	36	
Change in number of fights with siblings	35	
Threatened by violence at school	31	
Theft of personal possessions	30	
Changes responsibilities at home	29	

Stress (this year)	Points	Child's Score
Older sibling leaves home	29	
Trouble with grandparents	29	
Outstanding personal achievement	28	
Move to another city	26	
Move to another part of town	26	
Receives or loses a pet	25	
Changes in personal habits	24	
Trouble with teacher	24	
Change in hours with babysitter or day care center	20	
Move to a new house	20	
Changes to a new school	20	
Changes play habits	19	
Vacations with family	19	
Changes friends	18	
Attends summer camp	17	
Changes sleeping habits	16	
Change in number of family get-togethers	15	
Changes eating habits	15	
Changes amount of TV viewing	13	
Birthday party	12	
Punished for not "telling the truth"	11	

Add up the total points for all of the items your child has experienced in the last year. If your child scored below 150, he or she is about average with respect to stress load. If your child's score was between 150 and 300 he or she has a better chance of showing some symptoms of stress. If your child's score was above 300 there is a strong likelihood he or she will experience a serious change in health and/or behavior.

Appendix C

Likely Sources of Stress in Children

from Kindergarten to Grade 4

Likely Sources of Stress in Children

from Kindergarten to Grade 4

Stress in Children by Dr. Bettie B. Youngs, 1985

Kindergarten

Stressor	Signal
1. Uncertainty and fear of abandonment by a significant adult.	1. References to this fear in nap and sleep; daydreaming; crying associated with parental absence; nail-biting.
2. Fear of wetting themselves.	2. Frequent trips to the bathroom; occasional wetting; nail-biting; thumb-sucking.
3. Fear of punishment/ reprimand from teacher.	3. The youngster will desire to please the teacher, but will be uncertain about how to do that, and fear that the teacher may not be pleased or may even by angry.

First Grade

1. Fear of riding the bus.	1. Tries to persuade parents to drive him to school.
2. Fear of wetting in class.	2. Overly concerned; much time devoted to "what if" and occasional wetting due to anxiety.

First Grade (continued)

Stressor	Signal
3. Teacher disapproval.	3. Continual seeking of teacher approval as opposed to more independent action.
4. Ridiculed by peers and older students in the school.	4. Child becomes "inward," expresses desire not to go to school.
5. Receiving first report card and not passing to second grade.	5. Higher frequency of negative self-talk and low self-esteem.

Second Grade

1. Frequently misses a parent.	1. Wants to go home/be with parent.
2. Fear of not being able to understand a given lesson.	2. Inattention, crying, impatience with self.
3. Not being asked to be a "teacher helper."	3. Feels disliked by teacher; seeks any attention, positive or negative.
4. Fear of teacher's discipline.	4. Refuses direct eye contact in a teacher-student activity.
5. Fear of being different from other children in appearance.	5. Feels disliked by others.

Third Grade

Stressor	Signal
1. Being chosen last on any team.	1. Verbal expression of not wanting to play "this stupid game."
2. Parent conference.	2. Failure to notify parent or take home notices.
3. Fear of peer disapproval and fear of not being liked by the teacher.	3. Complains about being excluded from favorite activities.
4. Fear of test taking and not having enough time to work.	4. Careless work; absence on a test day; task avoidance.
5. Staying after school.	5. Rushes to complete work; wants to make a commitment for getting picked up on certain days.

Fourth Grade

1. Being chosen last on any team.	1. Verbal expression of not wanting to play.
2. Peer disapproval of dress or appearance.	2. Will change clothes several times in the morning; hostility shown toward adult who selects that day's outfit.
3. Fear that a particular friend will find a different friend to share with.	3. Jealously guards friendship.

Fourth Grade (continued)

Stressor	Signal
4. Fear of student ridicule.	4. Name-calling is "fair play."
5. Fear of not being personally liked by the teacher.	5. Wants to associate with the teacher.

Appendix D

Symptoms of Stress for Grades

One Through Six

Symptoms of Stress for Grades One Through Six

Stress and Your Child by Ruth P. Arent, 1984

Academic

Cannot concentrate

Has trouble remembering

Refuses to study

Is apathetic, disinterested

Constantly complains that it is too easy or too hard

Displays test anxiety, gets ill, has headaches, stomachaches

Classroom, School Management

Embarrassed by grouping (always in the slow reading group, for example)

Never gets to be in a group with class leaders

Resents hearing test scores announced in front of the whole class

Never has a chance to be alone

Feels teacher doesn't trust the class

Feels discipline, punishments consistently unfair

Complains that the teacher never tells anything about herself; feels unimportant to her

Tired of being asked to help others

Feels teacher doesn't grade fairly

Child-Teacher Relationship

Too dependent

Repeatedly says the teacher doesn't like him

Feels teacher enjoys embarrassing him

Shows anger when compared to older siblings

Says teacher is impersonal

Peer Relationships

Has no close friends
Never invited to parties or to play
Oversensitive to peer remarks
Unduly bossy with peers
Criticizes others
Intolerant
Feels too good for others, appears to be a snob

Personal Behaviors

Persistently unhappy or depressed
Threatens to run away
Refuses to go to school
Destroys personal or school property

Appendix E

Reducing Stress in Children Through

Creative Relaxation

Reducing Stress in Children Through Creative Relaxation

(Humphrey & Humphrey, 1984)

Progressive Relaxation

Muscles of the Head, Face, Tongue and Neck

1. Raise your eyebrows by opening the eyes as wide as possible. You might wish to look into a mirror to see if you have formed wrinkles on the forehead.
2. Tense the muscles on either side of your nose like you were going to sneeze.
3. Dilate or flare out the nostrils.
4. Force an extended smile from "ear to ear" at the same time clenching your teeth.
5. Pull one corner of the mouth up and then the other up and out as in a "villainous sneer."
6. Draw your chin down as close to your chest as possible.
7. Do the opposite as above trying to draw your head back as close to your back as possible.

Muscles of the trunk

1. Bring your chest forward, and at the same time put your shoulders back with emphasis on bringing your shoulder blades as close together as possible.
2. Try to round your shoulders and bring your shoulder blades far apart. This is pretty much the opposite of the above.

Muscles of the trunk (continued)

3. Give your shoulders a shrug, trying to bring them up to your ears at the same time as you try to bring your neck downward.

4. Breathe deeply, hold it momentarily and then blow out the air from your lungs rapidly.

5. Draw in your stomach so that your chest is out beyond your stomach. Exert your stomach muscles by forcing out to make it look like you are fatter in that area than you are.

Muscles of the Upper Extremities

1. Clench the fist, and then open the hand extending the fingers as far as possible.

2. Raise one arm shoulder high and parallel to the floor. Bend at the elbow, and bring the hand in toward the shoulder. Try to touch your shoulder while attempting to move the shoulder away from the hand. Flex your opposite biceps in the same manner.

3. Stretch one arm out to the side of the body, and try to point the fingers backward toward the body. Do the same with the other arm.

4. Hold the arm out the same way as above, but this time have the palm facing up, and point the fingers inward toward the body. Do the same for the other arm.

5. Stretch one arm out to the side, clench the fist, and roll the wrist around slowly. Do the same with the other arm.

Muscles of the Lower Extremities

1. Hold one leg out straight, and point your toes as far forward as you can. Do the same with the other leg.

2. Do the same as the above, but point your toes as far backward as you can.

3. Turn each foot outward as far as you can and release. Do just the opposite by turning the foot inward as far as you can.

4. Try to draw the thigh muscles up so that you can see the form of the muscles.

5. Make your buttocks tense by pushing down if you are sitting in a chair. If you are lying down, try to draw the muscles of the buttocks in close by attempting to force the cheeks together.

Appendix F

Potential Stressors Identified

by Teachers

Potential Stressors Identified by Teachers

(Blom, Cheney & Snoddy, 1986)

1. _____ school tests
2. _____ alcoholic parent
3. _____ divorce
4. _____ teacher behavior
5. _____ mental illness in family
6. _____ death of a parent
7. _____ peer pressure
8. _____ holidays
9. _____ special events (birthdays)
10. _____ sports
11. _____ parent's loss of job
12. _____ moving from school to school
13. _____ physical abuse
14. _____ psychological abuse
15. _____ new family member (birth)
16. _____ poverty
17. _____ new parent
18. _____ academic pressure
19. _____ accident/injury
20. _____ physical appearance
21. _____ tension between parents/school

22. _____ tardiness/absence
23. _____ losing something
24. _____ homework
25. _____ punishment/rewards
26. _____ rules and regulations
27. _____ confusion about directions
28. _____ relations with peers
29. _____ being labeled
30. _____ teasing
31. _____ parental pressure to achieve
32. _____ nuclear threat
33. _____ fears about fires and tornadoes
34. _____ noise levels
35. _____ child/teacher conflict
36. _____ family life style
37. _____ criticism
38. _____ dentist/doctor visit
39. _____ sibling competition

Appendix G

Frequency Count of Classroom Disruptions

Frequency Count of
Classroom Disruptions

Control Group

Kieyanna	Jermaine
Jennifer	Crystal
Christopher	Aaron
Jim	Shay
Odell	Kelsey
Alan	

Date _____

Hitting another child

Tattling

Interrupting the teacher

Talking back/arguing with teacher

Defiance

Frequency Count of
Classroom Disruptions

Experimental Group

Stephen	April R.
Shaquana	April S.
Nicole	Jason
James	Chassidy
Michael	Jose
Corey	

Date _____

Hitting another child

Tattling

Interrupting the teacher

Talking back/arguing with teacher

Defiance

Appendix H

Lesson Plan

Lesson Plan for the ten day treatment period

Objective - To train the experimental group progressive relaxation techniques and to recognize the feelings of stress in their bodies.

Procedure - After homeroom each morning, the control group will go to the Writing To Read lab to begin their work. The experimental group will move their chairs away from their desks, take off their coats and sit in a comfortable position. The teacher will begin relaxing the students by following the Creative Relaxation procedure composed by Humphrey and Humphrey (1984). (See Appendix E). During the procedure, the teacher will talk of the stress they may be feeling and the harmful effects of prolonged stress on the human body. The teacher will reinforce the concept of releasing tension in the body by flexing and relaxing tight muscles.

Appendix I

Research Statistics

Independence of Categorized Variables

Progressive Relaxation

Classroom Disruptions

	Control Group	Experimental Group	Total
Before Treatment	O 81 E (89.03)	O 59 E (50.97)	140
During Treatment	O 57 E (48.97)	O 20 E (28.03)	77
	total = 138	total = 79	N = 217

$(.72) + (1.32) + (1.27) + (2.30) = x^2 = 5.61$

$x^2.02,1 = 5.41$

Independence of Categorized Variables

Progressive Relaxation

Classroom Disruptions		Control Group	Experimental Group	Total
	During Treatment	O 57 E (59.27)	O 20 E (17.73)	77
	After Treatment	O 60 E (57.73)	O 15 E (17.27)	75
		total = 117	total = 35	N = 152

$$(.087) + (.089) + (.29) + (.298) = x^2 = .764$$

$$x^2.02,1 = 5.41$$

Independence of Categorized Variables

Progressive Relaxation

Classroom Disruptions

	Control Group		Experimental Group		Total
Before Treatment	O 81	E (91.81)	O 59	E (48.19)	140
After Treatment	O 60	E (49.19)	O 15	E (25.81)	75
	total = 141		total = 74		N = 215

$1.27 + 2.38 + 2.42 + 4.53 = x^2 = 10.6$

$x^2.02,1 = 5.41$